

Express Mail N . EV074975398US
Date of Deposit: March 12, 2003

Page 1 of 1

Please type a plus sign (+) in this box

+



RECEIVED

MAR 18 2003

Modified Form 1449/PTO		Application Number	10/016,248
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Filing Date	12/10/2001
(use as many sheets as necessary)		First Named Inventor	Alsobrook
		Group Art Unit	1645
		Examiner Name	Not Yet Assigned
		Attorney Docket Number	21402-218

TECH CENTER 1600/29C

U.S. PATENT DOCUMENTS								
Exam Initials	Cite No.	U.S. Patent Document No.	Issue Date	Name of Patentee(s) or Applicant(s)	Class	Sub Class	Filing Date if Appropriate	

FOREIGN PATENT DOCUMENTS								
Exam Initials	Cite No.	Foreign Patent Document Office Number	Name of Patentee(s) or Applicant(s)	Date of Publication	Translation Yes No			
	B1	WO 01/36638 ✓	Curagen Corporation	5/25/01				
	B2	WO 01/90354 ✓	University of Leeds	11/29/01				
	B3	WO 02/10189 ✓	Amgen, Inc.	2/7/02				

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS								
Exam Initials	Cite No.	Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc.						
gr	C164	Bork and Beckmann (1993). J Mol Biol 231:539-545. ✓						
gr	C165	International Search Report for PCT/US 01/48369, mailed February 28, 2003. ✓						
gr	C166	Sun, et al. (2001). Genomics 75: 17-25. ✓						

* a copy of this reference is not provided as it was previously cited by or submitted to the office in a prior application, Serial No. _____, filed _____, and relied upon for an earlier filing date under 35 U.S.C. §120 (continuation, continuation-in-part, and divisional applications).

Examiner Signature	<i>hanson</i>	Date Considered	11/11/04
--------------------	---------------	-----------------	----------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered.

Include copy of this form with next communication to applicant.

Please type a plus sign (+) in this box

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

21205B (12-97)
Approved for use through 9/30/00. GPO: 0657-003
Patent and Trademark Office. U.S. DEPARTMENT OF COMMERCE

Modified Form 1449/PTO

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(use as many sheets as necessary)

Application Number	10/016,248
Filing Date	12/10/2001
First Named Inventor	Alsobrook
Group Art Unit	1645
Examiner Name	Not Yet Assigned
Attorney Docket Number	21402-218

U.S. PATENT DOCUMENTS

Exam Initials	Cite No.	U.S. Patent Document No.	Issue Date	Name of Patentee(s) or Applicant(s)	Class	Sub Class	Filing Date if Appropriate

FOREIGN PATENT DOCUMENTS

Exam Initials	Cite No.	Foreign Patent Document Office Number	Name of Patentee(s) or Applicant(s)	Date of Publication	Translation Yes No

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Exam Initials	Cite No.	Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc.
Gen	C1	Alderborn, et al. (2000). "Determination of single-nucleotide polymorphisms by real-time pyrophosphate DNA sequencing." <i>Genome Res</i> 10(8): 1249-58.
	C2	Barcellos-Hoff (1996). "Latency and activation in the control of TGF-beta." <i>J Mammary Gland Biol Neoplasia</i> 1(4): 353-63.
	C3	Barry, et al. (2001). "Chondrogenic differentiation of mesenchymal stem cells from bone marrow: differentiation-dependent gene expression of matrix components." <i>Exp Cell Res</i> 268(2): 189-200.
	C4	Beintema and Kleineidam (1998). "The ribonuclease A superfamily: general discussion." <i>Cell Mol Life Sci</i> 54(8): 825-32.
	C5	Bhagwat, et al. (1999). "Gene-regulating protein kinases as important anti-inflammatory targets." <i>Drug Discov Today</i> 4(10): 472-479.
	C6	Cailloux, et al. (2000). "Genotype-phenotype correlation in inherited brain myelination defects due to proteolipid protein gene mutations." <i>Eur J Hum Genet</i> 8(11): 837-45.
	C7	Dale and Wardle (1999). "A gradient of BMP activity specifies dorsal-ventral fates in early <i>Xenopus</i> embryos." <i>Semin Cell Dev Biol</i> 10(3): 319-26.
	C8	Donaghy, et al. (2000). "Steroid responsive polyneuropathy in a family with a novel myelin protein zero mutation." <i>J Neurol Neurosurg Psychiatry</i> 69(6): 799-805.
	C9	Dudek, et al. (1997). "Regulation of neuronal survival by the serine-threonine protein kinase Akt." <i>Science</i> 275(5300): 661-5.
	C10	Elliott, et al. (1986). "Assignment of pancreatic ribonuclease gene to mouse chromosome 14." <i>Cytogenet Cell Genet</i> 42(1-2): 110-2.
	C11	Encinas, et al. (1999). "Cloning, expression, and genetic mapping of Sema W, a member of the semaphorin family." <i>Proc Natl Acad Sci U S A</i> 96(5): 2491-6.
	C12	Fagenholz, et al. (2001). "Osteoblast gene expression is differentially regulated by TGF-beta isoforms." <i>J Craniofac Surg</i> 12(2): 183-90.
	C13	GenBank Accession Number: AAC39879 (20-JUL-1998).

RECEIVED
APR 12 2002
606200200
U.S. PATENT & TRADEMARK OFFICE

APR 03 2002

Page 2 of 6

OTHER PRIOR ART, NON-PATENT LITERATURE DOCUMENTS

Exam Initials	Cite No.	Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc.
55	c14	GenBank Accession Number: AAC39882 (20-JUL-1998).
	c15	GenBank Accession Number: AAD32546 (27-MAY-1999).
	c16	GenBank Accession Number: AAF48719 (04-OCT-2000).
	c17	GenBank Accession Number: AAG01337 (23-AUG-2000).
	c18	GenBank Accession Number: AAG52948 (17-JUL-2001).
	c19	GenBank Accession Number: AAH08810 (12-JUL-2001).
	c20	GenBank Accession Number: AAK01435 (06-FEB-2001).
	c21	GenBank Accession Number: AAK91787 (15-OCT-2001).
	c22	GenBank Accession Number: AAK91800 (14-SEP-2001).
	c23	GenBank Accession Number: AAK91804 (14-SEP-2001).
	c24	GenBank Accession Number: AAL28659 (08-NOV-2001).
	c25	GenBank Accession Number: AB026192 (12-MAY-2000).
	c26	GenBank Accession Number: AB040912 (17-MAY-2001).
	c27	GenBank Accession Number: AB049127 (10-APR-2001).
	c28	GenBank Accession Number: AB058763 (05-JUN-2001).
	c29	GenBank Accession Number: AB067477 (19-MAR-2002).
	c30	GenBank Accession Number: AE003453 (04-OCT-2000).
	c31	GenBank Accession Number: AF030430 (15-NOV-1997).
	c32	GenBank Accession Number: AF030455 (02-JUN-1998).
	c33	GenBank Accession Number: AF051344 (21-JUL-1998).
	c34	GenBank Accession Number: AF054502 (21-JUL-1998).
	c35	GenBank Accession Number: AF059516 (29-SEP-1999).
	c36	GenBank Accession Number: AF116547 (27-MAY-1999).
	c37	GenBank Accession Number: AF116548 (27-MAY-1999).
	c38	GenBank Accession Number: AF288223 (23-AUG-2000).
	c39	GenBank Accession Number: AF332979 (06-FEB-2001).
	c40	GenBank Accession Number: AK005015 (19-JAN-2002).
	c41	GenBank Accession Number: AK005060 (19-JAN-2002).
	c42	GenBank Accession Number: AK013489 (19-JAN-2002).
	c43	GenBank Accession Number: AK014221 (19-JAN-2002).
	c44	GenBank Accession Number: AK015573 (19-JAN-2002).
	c45	GenBank Accession Number: AK021660 (29-SEP-2000).
	c46	GenBank Accession Number: AK022620 (29-SEP-2000).
	c47	GenBank Accession Number: AK023470 (29-SEP-2000).
	c48	GenBank Accession Number: AK028108 (29-SEP-2000).
	c49	GenBank Accession Number: AY017307 (17-JUL-2001).
	c50	GenBank Accession Number: AY042191 (15-OCT-2001).
	c51	GenBank Accession Number: AY042209 (14-SEP-2001).
	c52	GenBank Accession Number: AY042213 (14-SEP-2001).
	c53	GenBank Accession Number: AY061111 (08-NOV-2001).

RECEIVED
APR 08 2002
PTECH CENTER 16002900

Express Mail No. EV058074470US
Date of Deposit: April 3, 2002



Page 3 of 6

RECEIVED

TECH CENTER 1600/2900

APR 08 2002

OTHER PRIOR ART - NON-PATENT LITERATURE DOCUMENTS

Exam Initials	Cite No.	Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc.
Gu	c54	GenBank Accession Number: BAA95483 (12-MAY-2000).
	c55	GenBank Accession Number: BAA96003 (17-MAY-2001).
	c56	GenBank Accession Number: BAB13869 (29-SEP-2000).
	c57	GenBank Accession Number: BAB23747 (19-JAN-2002).
	c58	GenBank Accession Number: BAB23784 (19-JAN-2002).
	c59	GenBank Accession Number: BAB28878 (19-JAN-2002).
	c60	GenBank Accession Number: BAB29213 (19-JAN-2002).
	c61	GenBank Accession Number: BAB29898 (19-JAN-2002).
	c62	GenBank Accession Number: BAB47489 (05-JUN-2001).
	c63	GenBank Accession Number: BAB67783 (15-SEP-2001).
	c64	GenBank Accession Number: BC008810 (12-JUL-2001).
	c65	GenBank Accession Number: CAA70854 (Apr 11 2001).
	c66	GenBank Accession Number: I38053 (13-MAY-1997).
	c67	GenBank Accession Number: M13150 (11-JUN-1993).
	c68	GenBank Accession Number: NM_000530 (31-OCT-2000).
	c69	GenBank Accession Number: NM_002376 (31-OCT-2000).
	c70	GenBank Accession Number: NM_003573 (01-NOV-2000).
	c71	GenBank Accession Number: NM_006128 (03-FEB-2001).
	c72	GenBank Accession Number: NM_009390 (07-JAN-2002).
	c73	GenBank Accession Number: NM_011904 (07-JAN-2002).
	c74	GenBank Accession Number: NM_012465 (06-MAR-2002).
	c75	GenBank Accession Number: NM_020796 (13-JUL-2001).
	c76	GenBank Accession Number: NM_021750 (08-NOV-2000).
	c77	GenBank Accession Number: NM_024966 (10-DEC-2001).
	c78	GenBank Accession Number: NM_030726 (08-JAN-2002).
	c79	GenBank Accession Number: NM_031279 (24-APR-2001).
	c80	GenBank Accession Number: NM_031417 (30-NOV-2001).
	c81	GenBank Accession Number: NM_033225 (08-AUG-2001).
	c82	GenBank Accession Number: NM_053171 (08-JAN-2002).
	c83	GenBank Accession Number: NM_054032 (09-FEB-2002).
	c84	GenBank Accession Number: NP_000521 (31-OCT-2000).
	c85	GenBank Accession Number: NP_002367 (31-OCT-2000).
	c86	GenBank Accession Number: NP_003564 (01-NOV-2000).
	c87	GenBank Accession Number: NP_005521 (01-NOV-2000).
	c88	GenBank Accession Number: NP_006119 (03-FEB-2001).
	c89	GenBank Accession Number: NP_033416 (07-JAN-2002).
	c90	GenBank Accession Number: NP_036034 (07-JAN-2002).
	c91	GenBank Accession Number: NP_036597 (06-MAR-2002).
	c92	GenBank Accession Number: NP_065847 (13-JUL-2001).
Gu	c93	GenBank Accession Number: NP_068518 (08-NOV-2000).



APR 03 2002
 8 2002
 1600/2900

RECEIVED
 TECH CENTER 1600/2900

OTHER PRIOR ART/NON-PATENT LITERATURE DOCUMENTS

Exam Initials	Cite No.	Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc.
SM	C94	GenBank Accession Number: NP_079242 (10-DEC-2001).
	C95	GenBank Accession Number: NP_109621 (08-JAN-2002).
	C96	GenBank Accession Number: NP_109651 (08-JAN-2002).
	C97	GenBank Accession Number: NP_112569 (24-APR-2001).
	C98	GenBank Accession Number: NP_113605 (30-NOV-2001).
	C99	GenBank Accession Number: NP_150094 (08-AUG-2001).
	C100	GenBank Accession Number: NP_444401 (08-JAN-2002).
	C101	GenBank Accession Number: NP_473373 (09-FEB-2002).
	C102	GenBank Accession Number: P07998 (20-AUG-2001).
	C103	GenBank Accession Number: P10522 (16-OCT-2001).
	C104	GenBank Accession Number: P12526 (15-DEC-1998).
	C105	GenBank Accession Number: P19644 (01-NOV-1997).
	C106	GenBank Accession Number: P25189 (20-AUG-2001).
	C107	GenBank Accession Number: P80287 (01-FEB-1994).
	C108	GenBank Accession Number: Q64611 (30-MAY-2000).
	C109	GenBank Accession Number: XM_008868 (16-OCT-2001).
	C110	GenBank Accession Number: XM_016483 (16-APR-2001).
	C111	GenBank Accession Number: XM_029712 (16-OCT-2001).
	C112	GenBank Accession Number: XM_030962 (16-OCT-2001).
	C113	GenBank Accession Number: XM_034659 (06-FEB-2002).
	C114	GenBank Accession Number: XM_042459 (16-OCT-2001).
	C115	GenBank Accession Number: XM_047374 (07-FEB-2002).
	C116	GenBank Accession Number: XM_053758 (16-OCT-2001).
	C117	GenBank Accession Number: XP_008868 (16-OCT-2001).
	C118	GenBank Accession Number: XP_016482 (16-OCT-2001).
	C119	GenBank Accession Number: XP_029712 (16-OCT-2001).
	C120	GenBank Accession Number: XP_030962 (16-OCT-2001).
	C121	GenBank Accession Number: XP_034659 (06-FEB-2002).
	C122	GenBank Accession Number: XP_042459 (16-OCT-2001).
	C123	GenBank Accession Number: XP_047374 (07-FEB-2002).
	C124	GenBank Accession Number: XP_053758 (16-OCT-2001).
	C125	GenBank Accession Number: Y09661 (24-APR-1998).
SM	C126	GenBank Accession Number: Z83868 (25-APR-1997).
	C127	Goshima, et al. (1995). "Collapsin-induced growth cone collapse mediated by an intracellular protein related to UNC-33." <i>Nature</i> 376(6540): 509-14.
	C128	Hanley, et al. (1990). "The mas oncogene as a neural peptide receptor: expression, regulation and mechanism of action." <i>Ciba Found Symp</i> 150: 23-38.
	C129	Holland, et al. (2000). "Combined activation of Ras and Akt in neural progenitors induces glioblastoma formation in mice." <i>Nat Genet</i> 25(1): 55-7.
	C130	Hunter (1991). "Protein kinase classification." <i>Methods Enzymol</i> 200: 3-37.
SM	C131	Iemura, et al. (1999). "Isolation and characterization of bone morphogenetic protein-binding proteins



APR 03 2002

Page 5 of 6

TECH CENTER 1600

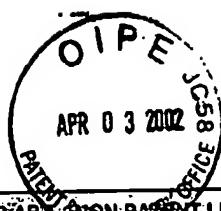
APR 08 2002

RECEIVED

OTHER PRIOR ART AND PATENT LITERATURE DOCUMENTS

Exam Initials	Cite No.	Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc.
ay		from the early <i>Xenopus</i> embryo." <i>J Biol Chem</i> <u>274</u> (38): 26843-9.
gy	C132	Inagaki, et al. (1995). "Identification of a member of mouse semaphorin family." <i>FEBS Lett</i> <u>370</u> (3): 269-72.
	C133	Jackson, et al. (1988). "The mas oncogene encodes an angiotensin receptor." <i>Nature</i> <u>335</u> (6189): 437-40.
	C134	Jenne, et al. (1998). "Peutz-Jeghers syndrome is caused by mutations in a novel serine threonine kinase." <i>Nat Genet</i> <u>18</u> (1): 38-43.
	C135	Khalil, et al. (2001). "Regulation of the effects of TGF-beta 1 by activation of latent TGF- beta 1 and differential expression of TGF-beta receptors (T beta R-I and T beta R-II) in idiopathic pulmonary fibrosis." <i>Thorax</i> <u>56</u> (12): 907-15.
	C136	Knighton, et al. (1991). "Crystal structure of the catalytic subunit of cyclic adenosine monophosphate-dependent protein kinase." <i>Science</i> <u>253</u> (5018): 407-14.
	C137	Kolodkin, et al. (1993). "The semaphorin genes encode a family of transmembrane and secreted growth cone guidance molecules." <i>Cell</i> <u>75</u> (7): 1389-99.
	C138	Lawrence (2001). "Latent-TGF-beta: an overview." <i>Mol Cell Biochem</i> <u>219</u> (1-2): 163-70.
	C139	Luo, et al. (1993). "Collapsin: a protein in brain that induces the collapse and paralysis of neuronal growth cones." <i>Cell</i> <u>75</u> (2): 217-27.
	C140	Matsui, et al. (2000). "Xenopus kielin: A dorsalizing factor containing multiple chordin-type repeats secreted from the embryonic midline." <i>Proc Natl Acad Sci U S A</i> <u>97</u> (10): 5291-6.
	C141	Piccoli, et al. (1999). "A dimeric mutant of human pancreatic ribonuclease with selective cytotoxicity toward malignant cells." <i>Proc Natl Acad Sci U S A</i> <u>96</u> (14): 7768-73.
	C142	Pittenger, et al. (1999). "Multilineage potential of adult human mesenchymal stem cells." <i>Science</i> <u>284</u> (5411): 143-7.
	C143	Popoli, et al. (2001). "Serine/threonine kinases as molecular targets of antidepressants: implications for pharmacological treatment and pathophysiology of affective disorders." <i>Pharmacol Ther</i> <u>89</u> (2): 149-70.
	C144	Roth-Eichhorn, et al. (2001). "Evidence for the decreased expression of the latent TGF-beta binding protein and its splice form in human liver tumours." <i>Scand J Gastroenterol</i> <u>36</u> (11): 1204-10.
	C145	Scott, et al. (1999). "Mammalian BMP-1/Tolloid-related metalloproteinases, including novel family member mammalian Tolloid-like 2, have differential enzymatic activities and distributions of expression relevant to patterning and skeletogenesis." <i>Dev Biol</i> <u>213</u> (2): 283-300.
	C146	Sekido, et al. (1996). "Human semaphorins A(V) and IV reside in the 3p21.3 small cell lung cancer deletion region and demonstrate distinct expression patterns." <i>Proc Natl Acad Sci U S A</i> <u>93</u> (9): 4120-5.
	C147	Shimizu-Nishikawa, et al. (1995). "Cloning and expression of SEZ-6, a brain-specific and seizure-related cDNA." <i>Brain Res Mol Brain Res</i> <u>28</u> (2): 201-10.
	C148	Su, et al. (1996). "Cloning and characterization of a novel serine/threonine protein kinase expressed in early <i>Xenopus</i> embryos." <i>J Biol Chem</i> <u>271</u> (24): 14430-7.
	C149	SWALL (SPTR) Accession Number: O75412 (1-NOV-1998).
	C150	SWALL (SPTR) Accession Number: Q16744 (1-NOV-1996).
	C151	SWALL (SPTR) Accession Number: Q9BYD8 (1-JUN-2001).
	C152	SWALL (SPTR) Accession Number: Q9H2E6 (1-MAR-2001).
	C153	SWALL (SPTR) Accession Number: Q9IBG7 (1-OCT-2000).
	C154	SWALL (SPTR) Accession Number: Q9JKE4 (1-OCT-2000).
	C155	SWALL (SPTR) Accession Number: Q9QYX3 (16-OCT-2001).
	C156	SWALL (SPTR) Accession Number: Q9VU95 (1-MAY-2000).
▼	C157	SWALL (SPTR) Accession Number: Q9Y600 (30-MAY-2000).

Express Mail No. EV058074470US
Date of Deposit: April 3, 2002



Page 6 of 6
APR 03 2002
RECEIVED
TEC CENTER 1600120

OTHER PRIOR ART, NON-PARENT LITERATURE DOCUMENTS		
Exam Initials	Cite No.	Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc.
	c158	SWALL (S PTR) Accession Number: Q9Y6L7 (1-NOV-1999).
qre	c159	Thielens, et al. (1999). "The N-terminal CUB-epidermal growth factor module pair of human complement protease C1r binds Ca ²⁺ with high affinity and mediates Ca ²⁺ -dependent interaction with C1s." <i>J Biol Chem</i> 274(14): 9149-59.
	c160	Uzel, et al. (2001). "Multiple bone morphogenetic protein 1-related mammalian metalloproteinases process pro-lysyl oxidase at the correct physiological site and control lysyl oxidase activation in mouse embryo fibroblast cultures." <i>J Biol Chem</i> 276(25): 22537-43.
	c161	Wootton and Federhen (1996). "Analysis of compositionally biased regions in sequence databases." <i>Methods Enzymol</i> 266: 554-71.
	c162	Xiang, et al. (1996). "Isolation of the human semaphorin III/F gene (SEMA3F) at chromosome 3p21, a region deleted in lung cancer." <i>Genomics</i> 32(1): 39-48.
✓	c163	Young, et al. (1988). "Characterization of the rat mas oncogene and its high-level expression in the hippocampus and cerebral cortex of rat brain." <i>Proc Natl Acad Sci U S A</i> 85(14): 5339-42.

* a copy of this reference is not provided as it was previously cited by or submitted to the office in a prior application, Serial No. _____, filed _____, and relied upon for an earlier filing date under 35 U.S.C. §120 (continuation, continuation-in-part, and divisional applications).

Examiner Signature		Date Considered	11/10/04
--------------------	--	-----------------	----------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered.

Include copy of this form with next communication to applicant.

TRA 1650742v1